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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/697,688

Filing Date: October 31, 2003

Appellant(s): SERRA ET AL.

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Ashok K. Mannava

For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 30 Jun. 2008 appealing from the Office action mailed 26 Feb. 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5808916	Orr et al.	7-1997
2003/014476 A1	Hsiung et al.	3-2001

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3, 5-21, and 23-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orr et al. (Patent No.: 5,808,916; Filing Date: Jul. 25, 1997)**

(hereinafter 'Orr'), in view of Hsiung et al. (Pub. No. US 2003/0144746 A1; Filing Date: Mar. 9, 2001) (hereinafter 'Hsiung').

**In regards to independent claims 1 and 30,** Orr discloses a method implemented by a computerized system comprising:

receiving data from a data source (col. 3, lines 1-27; col. 3, lines 55-62; Orr discloses a data reception ground station receiving data from different sources, including an earth bound fixed sensor, which gathers local information.).

determining a geographical location of the data source (col. 3, lines 28-54; col. 4, lines 59-64; Orr discloses a data reception ground station may receive global remote sensed information/data, including global positioning system (GPS). Orr also discloses the stations provide regional and global information respectively. The reception ground station transmits the information/data to a central location.).

Orr does not expressly disclose determining a location in an electronic spreadsheet for placing at least a portion of the data, wherein the determined spreadsheet location is based on the determined geographical location of the data source;

inserting the data portion in the electronic spreadsheet at the determined spreadsheet location;

displaying of the electronic spreadsheet to a user, wherein the electronic spreadsheet indicates the geographical location of the data source from a display of the data portion inserted at the determined location.

However, Hsiung teaches *determining a location in an electronic spreadsheet for placing at least a portion of the data, wherein the determined spreadsheet location is based on the determined geographical location of the data source* (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).

*inserting the data portion in the electronic spreadsheet at the determined spreadsheet location* (0365; Hsiung teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Thus, inserting the data portion in the electronic spreadsheet at the determined spreadsheet location.).

*displaying of the electronic spreadsheet to a user, wherein the electronic spreadsheet indicates the geographical location of the data source from a display of the data portion inserted at the determined location* (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claims 2 and 31,** Orr discloses *the method of claim 1, further comprises:*

*calculating, as a function of time, a value associated with the at least a portion of the data from the data source* (col. 4. line 44-col. 5, line 37; Orr discloses variances are mathematically calculated to determines the allowable tolerance within a signature band, to insure the classification accuracy of the data.).

Orr does not expressly disclose *transmitting the value to a spreadsheet program for display in the spreadsheet.*

However, Hsiung teaches *transmitting the value to a spreadsheet program for display in the spreadsheet* (0180; 0365; Hsiung teaches calculations can be a time weighted value, a mathematical weighted value, and others. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claims 3 and 32,** Orr does not disclose expressly *using a portion of the data from the data source to control a device.*

However, Hsiung teaches *using a portion of the data from the data source to control a device* (0003; 0029; Simply put, Hsiung teaches how a device can be controlled by a single parameter/value.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of being able to monitor and a control process/device in real time (0045).

**In regards to dependent claims 5 and 34,** Orr does not disclose expressly *transmitting the at least a portion of the data and the location in the spreadsheet to a spreadsheet program, wherein the spreadsheet program is operable to display the at least a portion of the data at the location.*

However, Hsiung teaches *transmitting the at least a portion of the data and the location in the spreadsheet to a spreadsheet program, wherein the spreadsheet program is operable to display the at least a portion of the data at the location* (0363-365; Hsiung teaches sensors may be described by a naming convention that makes

them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of being able to monitor and a control process/device in real time (0045).

**In regards to dependent claim 6,** Orr discloses *calculating a total from the at least a portion of the data from the data source* (col. 4. line 44-col. 5, line 37; Orr discloses variances are mathematically calculated to determines the allowable tolerance within a signature band, to insure the classification accuracy of the data.).

Orr does not expressly disclose *determining a location in the spreadsheet for placing the total based on one or more of the location information for the data source and location information for the at least one other data source* (column 17, lines19-20 & 25-29).

However, Hsiung teaches *determining a location in the spreadsheet for placing the total based on one or more of the location information for the data source and location information for the at least one other data source* (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to

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associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 7,** Orr does not disclose expressly determining a location in a spreadsheet based on the location information for the data source comprises mapping the location information for the data source to a predetermined location in the electronic spreadsheet.

However, Hsiung teaches determining a location in a spreadsheet based on the location information for the data source comprises mapping the location information for the data source to a predetermined location in the electronic spreadsheet (0364-0365; Hsiung teaches mapping the location spreadsheet to sensors, which is considered a data source. Hsiung further teaches a function may be provided which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest reasonable interpretation, the Examiner concludes the mapping of location to a predetermined location in the spreadsheet would be determined during design/setup.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 8,** Orr discloses *determining whether the at least a portion of the data from the data source is in the view* (column 4, lines 32-45; Orr discloses a display engine which extracts only a portion of the image needed and sends the result to a display screen. Thus determining whether the at least a portion of the data from the data source is in the view.).

Orr does not expressly disclose *identifying a view to be displayed in the spreadsheet.*

*transmitting the at least a portion of the data and the location in the electronic spreadsheet to a spreadsheet program in response to the at least a portion of the data being in the view, wherein the spreadsheet program is operable to display the at least a portion of the data at the location.*

However, Hsiung teaches *identifying a view to be displayed in the spreadsheet* (365; Hsiung teaches the Model Builders may select the source of the training data, which associates a sensor with a column of data in the spreadsheet. Thus, identifying a view to be displayed in the spreadsheet.).

*transmitting the at least a portion of the data and the location in the electronic spreadsheet to a spreadsheet program in response to the at least a portion of the data being in the view, wherein the spreadsheet program is operable to display the at least a portion of the data at the location (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).*

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to independent claim 9,** Orr discloses *receiving data from a plurality of sensors, each of the plurality of sensors situated at a separate geographical location* (col. 3, lines 1-62; Orr discloses a data reception ground station receiving data from different sources, including an earth bound fixed sensor, which gathers local information. Orr also discloses a data reception ground station may receive global remote sensed information/data, including global positioning system (GPS).).

*determining the separate geographical location of each of the plurality of sensors* (col. 3, lines 28-54; col. 4, lines 59-64; Orr discloses a data reception ground station

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may receive global remote sensed information/data, including global positioning system (GPS). Orr also discloses the stations provide regional and global information respectively. The reception ground station transmits the information/data to a central location.).

*Orr does not disclose expressly a method of using an electronic spreadsheet to display information at locations in the spreadsheet associated with the origin of the information, the method comprising:*

*determining locations in the spreadsheet based on the determined separate geographical locations of the plurality of sensors such that one or more of at least a portion of the data from each of the plurality of sensors and a value is operable to be displayed in one or more of the locations in the electronic spreadsheet, wherein the value is calculated from at least some of the data from the plurality of sensors.*

*inserting the data portion from each of the plurality of sensors in the electronic spreadsheet at each of the determined spreadsheet locations.*

*providing a display in the electronic spreadsheet to a user at least one of the data portions inserted in one of the determined spreadsheet locations, wherein the display indicates the separate geographical location of one of the plurality of sensors.*

However, Hsiung teaches a method of using an electronic spreadsheet to display information at locations in the spreadsheet associated with the origin of the information, the method comprising:

*determining locations in the spreadsheet based on the determined separate geographical locations of the plurality of sensors such that one or more of at least a portion of the data from each of the plurality of sensors and a value is operable to be displayed in one or more of the locations in the electronic spreadsheet, wherein the value is calculated from at least some of the data from the plurality of sensors (0180; 0363-365; Hsiung teaches calculations can be a time weighted value, a mathematical weighted value, and others. Hsiung also teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).*

*inserting the data portion from each of the plurality of sensors in the electronic spreadsheet at each of the determined spreadsheet locations (0365; Hsiung teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Thus, inserting the data portion in the electronic spreadsheet at the determined spreadsheet location.).*

*providing a display in the electronic spreadsheet to a user at least one of the data portions inserted in one of the determined spreadsheet locations, wherein the display indicates the separate geographical location of one of the plurality of sensors (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables*

the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 10,** Orr discloses the method of claim 9, further comprises:

*calculating, as a function of time, the value* (col. 4. line 44-col. 5, line 37; Orr discloses variances are mathematically calculated to determine the allowable tolerance within a signature band, to insure the classification accuracy of the data.).

Orr does not expressly disclose *the step of determining locations in the spreadsheet comprises determining a location in the spreadsheet to display the value based on the location of at least one of the plurality of sensors.*

However, Hsiung teaches *the step of determining locations in the spreadsheet comprises determining a location in the spreadsheet to display the value based on the location of at least one of the plurality of sensors* (0180; 0365; Hsiung teaches

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calculations can be a time weighted value, a mathematical weighted value, and others.

Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 11,** Orr does not disclose expressly *controlling a device based on the value.*

However, Hsiung teaches *controlling a device based on the value.* (0003; 0029; Simply put, Hsiung et al. discloses how a device can be controlled by a single parameter/value.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of being able to monitor and a control process/device in real time (0045).

**In regards to dependent claim 12,** Orr does not expressly disclose *the step of determining locations in the spreadsheet comprises:*

*selecting cells in the electronic spreadsheet to display at least one of the at least a portion of the data and the value.*

However, Hsiung teaches *selecting cells in the electronic spreadsheet to display at least one of the at least a portion of the data and the value* (0180; 0365; Hsiung teaches calculations can be a time weighted value, a mathematical weighted value, and others. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 13,** Orr does not expressly disclose *transmitting the at least a portion of the data and the determined locations to a spreadsheet program, wherein the spreadsheet program is operable to display the at least a portion of the data in the determined locations.*

However, Hsiung teaches *transmitting the at least a portion of the data and the determined locations to a spreadsheet program, wherein the spreadsheet program is operable to display the at least a portion of the data in the determined locations.* (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to

identify the sensors could include but not be limited to the geographical location of the sensor.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 14,** Orr discloses *dividing an area into a plurality of sections, the plurality of sensors being located in the area* (col. 3, line 28-col. 4, line 31; Orr discloses a data reception ground station receiving data from different sources, including an earth bound fixed sensor, which gathers local information. The ground station may receive global remote sensed information/data, including global positioning system (GPS) and provide regional and global information respectively. Dictionary.com defines "regional" as relating to a large geographical area. Thus Orr teaches dividing an area into a plurality of sections, the plurality of sensors being located in the area.).

*receiving a selection of a view including at least one of the plurality of sections* (col. 3, lines 1-27; col. 3, lines 55-62; Orr discloses a data reception ground station receiving data from different sources, including an earth bound fixed sensor, which gathers local information.).

*determining whether any of the plurality of sensors are located in the at least one of the plurality of sections*(col. 3, lines 28-54; col. 4, lines 59-64; Orr discloses a data reception ground station may receive global remote sensed information/data, including

global positioning system (GPS). Orr also discloses the stations provide regional and global information respectively. The reception ground station transmits the information/data to a central location.).

Orr does not expressly disclose *transmitting data from the plurality of sensors located in the at least one of the plurality of sections and the determined locations for the plurality of sensors located in the at least one of the plurality of sections to a spreadsheet program operable to display the data from the plurality of sensors located in the at least one of the plurality of sections at the determined locations.*

However, Hsiung teaches *transmitting data from the plurality of sensors located in the at least one of the plurality of sections and the determined locations for the plurality of sensors located in the at least one of the plurality of sections to a spreadsheet program operable to display the data from the plurality of sensors located in the at least one of the plurality of sections at the determined locations* (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provided which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of being able to monitor and a control process/device in real time (0045).

**In regards to dependent claim 15,** Orr discloses *calculating a total from the data from at least some of the sensors located in the at least one of the plurality of sections* (col. 3, lines 1-27; col. 3, lines 55-62; col. 4, line 44-col. 5, line 37; Orr discloses a data reception ground station receiving data from different sources, including an earth bound fixed sensor, which gathers local information. Orr discloses variances are mathematically calculated to determine the allowable tolerance within a signature band, to insure the classification accuracy of the data.).

*Orr does not expressly disclose transmitting the total to a spreadsheet program operable to display the total at one of the determined locations associated with the at least some of the sensors*

Hsiung teaches *transmitting the total to a spreadsheet program operable to display the total at one of the determined locations associated with the at least some of the sensors* (0365; Hsiung teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-

readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 16,** Orr does not disclose expressly *determining locations in the spreadsheet comprises mapping the locations of the plurality of sensors to predetermined locations in the electronic spreadsheet.*

However, Hsiung teaches *determining locations in the spreadsheet comprises mapping the locations of the plurality of sensors to predetermined locations in the electronic spreadsheet* (0034; 0364-0365; Hsiung teaches mapping the location spreadsheet to sensors, which is considered a data source. Hsiung further teaches a function may be provided which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest reasonable interpretation, the Examiner concludes the mapping of location to a predetermined location in the spreadsheet would be determined during design/setup.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to independent claim 17,** Orr discloses a system comprising:

*a plurality of data sensor* (col. 3, lines 1-27; col. 3, lines 55-62; Orr discloses a data reception ground station receiving data from different sources, including an earth bound fixed sensor, which gathers local information.).

*a computing platform operable to identify a geographical location of each of the data sensors* (col. 3, lines 28-54; col. 4, lines 59-64; Orr discloses a data reception ground station may receive global remote sensed information/data, including global positioning system (GPS). Orr also discloses the stations provide regional and global information respectively. The reception ground station transmits the information/data to a central location.).

Orr does not expressly disclose *the computing platform is further operable to designate locations in an electronic spreadsheet based on the identified geographical locations of the plurality of data sensors to display at the designate locations in the electronic spreadsheet at least one of the data from the plurality of sensors and a value calculated from the data from one or more of the plurality of sensors.*

*wherein the computing platform conveys to a user, via the electronic spreadsheet, a display of the at least one data at one of the designated locations in the electronic spreadsheet to indicate the geographical location of at least one of the data sensor.*

However, Hsiung teaches *the computing platform is further operable to designate locations in an electronic spreadsheet based on the identified geographical locations of the plurality of data sensors to display at the designate locations in the electronic*

*spreadsheet at least one of the data from the plurality of sensors and a value calculated from the data from one or more of the plurality of sensors (0180; 0363-365; Hsiung teaches calculations can be a time weighted value, a mathematical weighted value, and others. Hsiung also teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).*

*wherein the computing platform conveys to a user, via the electronic spreadsheet, a display of the at least one data at one of the designated locations in the electronic spreadsheet to indicate the geographical location of at least one of the data sensor (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).*

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-

readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 18,** Orr discloses *the computing platform is operable to calculate the value as a function of time* (col. 4. line 44-col. 5, line 37; Orr discloses variances are mathematically calculated to determines the allowable tolerance within a signature band, to insure the classification accuracy of the data.).

**In regards to dependent claim 19,** Orr does not expressly disclose *at least one other electronic spreadsheet operable to use data contained in the electronic spreadsheet to perform a mathematical function.*

However, Hsiung teaches *at least one other electronic spreadsheet operable to use data contained in the electronic spreadsheet to perform a mathematical function* (0180; 0365; Hsiung teaches calculations can be a time weighted value, a mathematical weighted value, and others. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. It has been established and is well known in the art that spreadsheets software is typically design to perform a mathematical function, i.e. Microsoft Excel.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 20,** Orr does not disclose expressly *at least one device controlled by the computing platform based on the data from one or more of the plurality of data sources.*

However, Hsiung teaches *at least one device controlled by the computing platform based on the data from one or more of the plurality of data sources* (0003; 0029; Simply put, Hsiung teaches how a device can be controlled by a single parameter/value.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 21,** Orr discloses *a configuration repository storing the data from the plurality of data sensors* (col. 3, lines 38-65; Orr discloses remote sensed data is routed to a central location where it is processed, manipulated and archived.).

Orr does not expressly disclose *a configuration repository storing the locations in the electronic spreadsheet for placing the data from the plurality of data sensors, wherein the computing platform is operable to retrieve the locations in the electronic spreadsheet from the configuration repository to determine where to place the data from the plurality of data sensors in the electronic spreadsheet.*

However, Hsiung teaches a configuration repository storing the locations in the electronic spreadsheet for placing the data from the plurality of data sensors, wherein the computing platform is operable to retrieve the locations in the electronic spreadsheet from the configuration repository to determine where to place the data from the plurality of data sensors in the electronic spreadsheet (0033-0034; 0364-0365; Hsiung teaches a database/repository is connected to a server which is useful for process control and monitoring functions. Hsiung teaches data fields from the spreadsheet from the spreadsheet may be mapped to the appropriate sensor. Hsiung further teaches a function may be provided which enables the Model Builder to associate a sensor with a column of data in the spreadsheet.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and controlling a process/device in real time (0045).

**In regards to dependent claim 23,** Orr discloses remote sensed data may be fed directly to a central location in real time or near real time where it is processed, manipulated and archived (col. 3, lines 38-65;)

Orr does not expressly disclose the plurality of sensors comprises a plurality of sensors in a data center and the computing platform is operable to facilitate the placement of the data from the plurality of the sensors in the locations in the spreadsheet associated with locations of the plurality sensors in the data center.

However, Hsiung teaches *the plurality of sensors comprises a plurality of sensors in a data center and the computing platform is operable to facilitate the placement of the data from the plurality of the sensors in the locations in the spreadsheet associated with locations of the plurality sensors in the data center* (0364-0365; 0034; 0102; 0447; Hsiung teaches data is acquired from a plurality of sources, for example field mounted devices such as sensors. Hsiung teaches data fields from the spreadsheet from the spreadsheet may be mapped to the appropriate sensor. Hsiung further teaches a function may be provided which enables the Model Builder to associate a sensor with a column of data in the spreadsheet.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and controlling a process/device in real time (0045).

**In regards to dependent claim 24,** Orr discloses *the computing platform is operable to facilitate the generation of different views of the sensors in the data center* (col. 4, lines 32-45; Orr discloses a plurality of direct display screen may be used in the information center. Using the broadest reasonable interpretation, the Examiner concludes the each display screen displays a different view.).

Orr does not expressly disclose *the different views being provided in the spreadsheet.*

However, Hsiung teaches *the different views being provided in the spreadsheet* (0364-0365; 0034; 0102; 0447; Hsiung teaches data is acquired from a plurality of sources, for example field mounted devices such as sensors. Hsiung teaches data fields from the spreadsheet from the spreadsheet may be mapped to the appropriate sensor. Hsiung further teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045)

**In regards to independent claim 25,** Orr discloses *means for receiving data from a plurality of sensors* col. 3, lines 1-27; col. 3, lines 55-62; Orr discloses a data reception ground station receiving data from different sources, including an earth bound fixed sensor, which gathers local information.).

*means for determining a geographical location of each of the plurality of sensors* (col. 3, lines 28-54; col. 4, lines 59-64; Orr discloses a data reception ground station may receive global remote sensed information/data, including global positioning system (GPS). Orr also discloses the stations provide regional and global information respectively. The reception ground station transmits the information/data to a central location.).

*Orr does not disclose expressly means for determining locations in an electronic spreadsheet based on locations of the plurality of sensors such that one or more at least a portion of the data from each of the plurality of sensors and a value calculated from the data from one or more of the plurality of sensors is operable to be displayed in one or more of the locations in the electronic spreadsheet.*

*means for providing a display in the electronic spreadsheet to a user at least one of the data portions inserted in one of the determined spreadsheet locations, wherein the display indicates the separate geographical location of one of the plurality of sensors.*

However, Hsiung teaches *means for determining locations in an electronic spreadsheet based on locations of the plurality of sensors such that one or more at least a portion of the data from each of the plurality of sensors and a value calculated from the data from one or more of the plurality of sensors is operable to be displayed in one or more of the locations in the electronic spreadsheet* (0180; 0363-365; Hsiung teaches calculations can be a time weighted value, a mathematical weighted value, and others. Hsiung also teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provided which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).

*means for providing a display in the electronic spreadsheet to a user at least one of the data portions inserted in one of the determined spreadsheet locations, wherein the display indicates the separate geographical location of one of the plurality of sensors (0363-365; Hsiung teaches sensors may be described by a naming convention that makes them easy to identify. Hsiung also teaches a function may be provided which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Using the broadest interpretation, the Examiner concludes that the naming convention to identify the sensors could include but not be limited to the geographical location of the sensor.).*

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and controlling a process/device in real time (0045).

**In regards to dependent claim 26,** Orr discloses *means for calculating as a function of time the value* (col. 4. line 44-col. 5, line 37; Orr discloses variances are mathematically calculated to determine the allowable tolerance within a signature band, to insure the classification accuracy of the data.).

**In regards to dependent claim 27,** Orr does not disclose expressly *means for controlling a device based on the calculated value.*

However, Hsiung discloses *means for controlling a device based on the calculated value* (0003; 0029; Simply put, Hsiung discloses how a device can be controlled by a single parameter/value.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of being able to monitor and a control process/device in real time (0045).

**In regards to dependent claim 28,** Orr discloses *storage means for storing the data from the sensors* (col. 3, lines 38-65; Orr discloses remote sensed data is routed to a central location where it is processed, manipulated and archived.).

Orr does not expressly disclose *storage means for storing the locations of the data from the sensors in the spreadsheet, wherein the means for determining the locations in the spreadsheet is operable to retrieve the locations in the spreadsheet from the storage means based on the locations of the plurality of sensors.*

However, Hsiung teaches *storage means for storing the locations of the data from the sensors in the spreadsheet, wherein the means for determining the locations in the spreadsheet is operable to retrieve the locations in the spreadsheet from the storage means based on the locations of the plurality of sensors* (0033-0034; 0364-0365; Hsiung teaches a database/repository is connected to a server which is useful for process control and monitoring functions. Hsiung teaches data fields from the spreadsheet from the spreadsheet may be mapped to the appropriate sensor. Hsiung

further teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 29,** Orr does not expressly disclose *means for receiving user selections associated with a view to be displayed in the spreadsheet, the view including at least one of the data from one or more of the plurality of sensors and the value.*

However, Hsiung teaches *means for receiving user selections associated with a view to be displayed in the spreadsheet, the view including at least one of the data from one or more of the plurality of sensors and the value* (0364-0368; Hsiung teaches a database/repository is connected to a server which is useful for process control and monitoring functions. Hsiung teaches data fields from the spreadsheet from the spreadsheet may be mapped to the appropriate sensor. Hsiung also teaches a function may be provides which enables the Model Builder to associate a sensor with a column of data in the spreadsheet. Hsiung further teaches the GUI may include a pop-up calendar to aid the user in selecting the time period of the data in the training set for each sensor in the model. Thus, Hsiung teaches means for receiving user selections

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associated with a view to be displayed in the spreadsheet, the view including at least one of the data from one or more of the plurality of sensors and the value.).

Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Hsiung with Orr for the benefit of a computer-readable medium containing computer program code for monitoring and a controlling a process/device in real time (0045).

**In regards to dependent claim 33, Orr discloses a computer-readable medium wherein the method further comprises determining the location information for the data source, wherein the location information is associated with a physical location of the data source** (col. 3, lines 28-54; col. 4, lines 59-64; Orr discloses a data reception ground station may receive global remote sensed information/data, including global positioning system (GPS). Orr also discloses the stations provide regional and global information respectively. The reception ground station transmits the information/data to a central location. Dictionary.com defines “regional” as relating to a large geographical area. Thus Orr teaches location information is associated with a physical location of the data source.).

#### NOTE

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the reference should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon

for all that it would have reasonably suggested to one having ordinary skill in the art.

See MPEP 2123.

**(10) Response to Argument**

Appellant argues that a proper Graham inquiry has not been performed because the Office Action failed to properly ascertain the differences between the alleged prior art (Hsiung) and the features of the independent claims. See *Brief* -- Page 9, first full paragraph, first and second sentences.

The examiner disagrees.

The 103 rejections for the independent claims (i.e., Claims 1, 9, 17, 25 and 30) were based on Orr (US 5808916), in view of Hsiung (US 2003/0144746). Thus, a proper Graham inquiry would identify the differences between the primary reference (Orr) and the claimed invention (i.e., the missing claim limitations). The examiner notes that the 103 rejections for each independent claim identify the differences between Orr and the claimed invention, as indicated in the above rejections.

Moreover, the examiner further notes that the 103 rejections for the independent claims properly indicate that Hsiung teaches the missing claim limitations and provides motivation for combining the teachings with the disclosure of Orr.

Appellant argues that Hsiung fails to disclose "*determining [or identifying] a geographical location of the data source [or sensor]*" and "*determining [or identifying] a location in an electronic spreadsheet for placing at least a portion of the data based on the determined geographical location of the data source*" because the Model Builders in Hsiung maps data from the spreadsheet to the appropriate sensor (emphasis in original text). See *Brief -- Page 10*, second full paragraph, first and second sentences.

The examiner disagrees.

Firstly, the examiner notes that Hsiung was not relied upon to teach "*determining [or identifying] a geographical location of the data source [or sensor]*." Rather, Orr was used to teach this limitation, as indicated in the above rejections. In response to Appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Secondly, the examiner accepts Appellant's reasoning that Hsiung teaches importing data from a spreadsheet to a sensor. Nevertheless, the examiner also notes that Hsiung also teaches taking readings from a sensor and importing those readings into a spreadsheet, as indicated in the following discussion.

Hsiung expressly teaches the following:

- techniques and devices for maintaining process control in complex industrial processes, which involves monitoring individual parameters such as temperature, pressure, flow and incoming fluid characteristics (see Page 1, Paragraph 0003);
- field mounted devices, including sensors, that acquire information (i.e., data) and transfer the data to servers for the purpose of monitoring and controlling processes (see Page 3, Paragraphs 0030 and 0033);
- databases that store data imported **from the sensors into the databases** (emphasis added); these databases also include models that are used to monitor and control the processes (see Page 3, Paragraph 0034);
- software that provides data analysis capabilities and the ability to develop process models for the purpose of monitoring the processes; for the purpose of performing data analysis, this software imports data from databases, **spreadsheets**, physical models or text files (emphasis added).

Thus, the monitoring and control system taught in Hsiung:

- obtains data using sensors;
- **imports** the obtained **data into** databases, **spreadsheets**, physical models or text files, and
- performs data analysis on the imported data using models.

Appellant argues that Hsiung fails to disclose "the claimed mapping" because the geographical location of the data source is completely disregarded when the training data is entered into the spreadsheet before it is sent to the sensors. See Brief -- Page 11, first partial paragraph, last sentence.

The examiner disagrees.

Firstly, the examiner notes that none of the independent claims (i.e., Claims 1, 9, 17, 25 and 30) expressly recite "mapping" data from a data source to a location in a spreadsheet. Rather, the claims essentially recite "*receiving data*" and "*determining a location in an electronic spreadsheet for placing at least a portion of the data*," as recited in Claim 1.

Secondly, as explained in the above discussion, although Hsiung does teach importing data from the spreadsheet to the sensor, it also teaches importing data from a sensor into a spreadsheet.

Thirdly, regarding Appellant's argument that data is sent from the spreadsheet to the sensor, the Appellant is misconstruing the teachings of Hsiung. The portion of Hsiung misconstrued by Appellant is Page 21, Paragraph 0365. This paragraph reads:

"Model Builders may also select the source of the training data. Training data can come from a real-time data server, a historical data server, or from a Microsoft Excel spreadsheet. Model Builders may specify the location of the training data for each sensor or model that is used as input to the model. If training data is being imported from an Excel

spreadsheet, data fields from the spreadsheet may be mapped to the appropriate sensor. A function may be provided which enables the Model Builder to associate a sensor with a column of data in the spreadsheet."

Thus, sensors collect data (i.e., "training data") and provide the collected data as input to the model. To provide the data as input to the model, the sensors read the data and export it into spreadsheets, where the model can then import the data from the spreadsheet into the model. Therefore, the spreadsheets do not provide data to the sensors.

Fourthly, with regard to Appellant's argument that Hsiung completely disregards the geographical location of the data source, the Specification of the present application expressly states that a user viewing the data in the spreadsheet may generally determine where in the data center the sensor providing the data is located (page 7, lines 19-21). Thereby, the user may determine any sensor's location by simply viewing the spreadsheet, due to the user being familiar with the mapping of the sensors to certain locations/columns/cells in the spreadsheet. Similarly, Hsiung teaches that Model Builders may specify the location of the training data for each sensor or model that is being used as input to the model (0365). Therefore, the examiner concludes that, while viewing Hsiung's spreadsheet, a user being familiar with the mapping of the sensors to columns/cells in the spreadsheet, may also be able to determine the location of the sensor.

Appellant argues that Hsiung fails to disclose "*determining a location in an electronic spreadsheet for placing at least a portion of the data based on the determined geographical location of the data source.*" See Brief -- Page 12, last paragraph.

The examiner disagrees.

As indicated in the above discussion, Hsiung teaches monitoring and control systems for industrial processes that include "field mounted" sensors that acquire data and import that data into spreadsheets. Because each individual sensor is mounted "in the field" (i.e., in a factory) and imports its data into a spreadsheet, each individual sensor has a "geographical location" and is mapped to a location in the corresponding spreadsheet. Thus, when the data is being sent from the sensor to the spreadsheet, a location for placing the data in the spreadsheet is determined based on the geographical location of the sensor.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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